

WHAT IS CLAIMED IS:

1. A pen input display device for making pen entry on a display panel using an input pen having an ultrasonic transmitting section, the pen input display device including at least two ultrasonic receiving sections that are in a fixed spatial relationship with the display panel,

said pen input display device comprising:

a distance detecting section for detecting a parameter that directly or indirectly indicates a distance of the ultrasonic transmitting section from each of the ultrasonic receiving sections; and

a received waveform control section for carrying out control of reducing a difference in level of received waveforms, based on a result of detection by the distance detecting section, when the ultrasonic receiving sections receive an ultrasonic signal from the ultrasonic transmitting section.

2. The pen input display device as set forth in claim 1, wherein:

the received waveform control section controls reception sensitivity of the ultrasonic receiving sections, whereby reception sensitivity is decreased for an ultrasonic receiving section whose distance from the

ultrasonic transmitting section is short, and is increased for an ultrasonic receiving section whose distance from the ultrasonic transmitting section is long.

3. The pen input display device as set forth in claim 2, wherein:

each of the ultrasonic receiving sections includes an ultrasonic receiver and an amplifier circuit for amplifying an output of the respective ultrasonic receiver; and

the received waveform control section carries out such control that a gain of the amplifier circuit is decreased for an ultrasonic receiving section whose distance from the ultrasonic transmitting section is short, and is increased for an ultrasonic receiving section whose distance from the ultrasonic transmitting section is long.

4. The pen input display device as set forth in claim 1, wherein:

the received waveform control section controls transmission intensity of the ultrasonic transmitting section, whereby transmission intensity of the ultrasonic transmitting section is decreased when the distance of the ultrasonic transmitting section from the ultrasonic receiving section is short, and is increased when the distance of the ultrasonic transmitting section from the

ultrasonic receiving section is long.

5. The pen input display device as set forth in claim 4,

wherein the ultrasonic transmitting section comprises:

a transmitting circuit including a coil, a switch section, and a resistor, the coil and the switch section being serially connected to each other, and the coil and the resistor being connected parallel to each other; and

an ultrasonic transmitter connected parallel to the coil of the transmitting circuit, and

wherein the received waveform control section carries out such control that a length of an ON period of a control signal for controlling ON/OFF of the switch section of the transmitting circuit is decreased when the distance of the ultrasonic transmitting section from the ultrasonic receiving section is short, and is increased when the distance of the ultrasonic transmitting section from the ultrasonic receiving section is long.